

$$\textcircled{1} x = 128$$

$$\textcircled{2} \sqrt{6x-5} + 10 = 3$$

$$\sqrt{6x-5} = -7$$

~~$x = 9$~~
no solution

$$\sqrt{49} = 7$$

$$\textcircled{3} x = -165$$

$$\textcircled{4} \quad X = \frac{8}{125}$$

$$X^{\frac{1}{3}} - \frac{2}{5} = 0$$

$$+ \frac{2}{5} \quad \frac{+2}{5}$$

$$\left(X^{\frac{1}{3}} \right)^3 \left(\frac{2}{5} \right)^3$$

$$X = \frac{8}{125}$$

$$\textcircled{5} \quad x = -3,200,000$$

$$-2 \left(\cancel{\frac{1}{2}} x^{\frac{1}{5}} \right) = (0) - 2$$

$$\left(x \right)^{\cancel{\frac{1}{5}}_5} = (-20)^5$$

$$x =$$

$$\textcircled{6} \quad ((x-4))^{\frac{3}{2}} = (-6)^{\frac{2}{3}}$$

$$\begin{array}{r} x-4 = 3.302 \\ +4 \quad +4 \end{array}$$

$$x = \cancel{7.302}$$

no soln.

$$\textcircled{7} \quad x = 7$$

$$\textcircled{7} \quad \frac{3(X+1)^{4/3}}{3} = \frac{48}{3}$$

$$\left((X+1)^{4/3} \right)^{3/4} = (16)^{(3/4)}$$

$$X+1=8$$

$$\textcircled{X=7}$$

$$\textcircled{1} x=4$$

$$\textcircled{2} x=27$$

$$\textcircled{3} x=81$$

$$\textcircled{4} x=\frac{11}{2}$$

$$\textcircled{5} x=5.0123$$

$$\textcircled{6} x=216$$

$$\textcircled{7} x=200$$

$$\textcircled{9} x=\frac{12}{7}$$

$$\textcircled{10} x=36, \text{X}$$

$$\textcircled{11} x=-\frac{2}{3}$$

$$\textcircled{12} x=2 \pm \sqrt{7}$$

$$2 + \sqrt{7}$$

$$(x-12)(x-12)$$

$$\textcircled{10} \quad (x-12)^2 = \sqrt{16x}^2$$

$$x^2 - 24x + 144 = 16x$$

$$x^2 - 40x + 144 = 0$$

$$(x-36)(x-4) = 0$$

$$x = 36, \cancel{x}$$

$$\textcircled{5} - (x-5)^{1/4} + \frac{7}{3} = 2$$

$$- \frac{7}{3} \quad - \frac{7}{3}$$

$$-(x-5)^{1/4} = -\frac{1}{3}$$

$$\left((x-5)^{\cancel{7/4}} \right)^4 = \left(\frac{1}{3} \right)^4$$

$$x-5 = 0.0123$$

$$5.0123$$

$$\textcircled{11} \quad x^2 + 5 = x^2 + 6x + 9$$

$$0 = 6x + 4$$

$$\textcircled{12} \quad 8x + 1 = x^2 + 4x + 4$$

$$0 = x^2 - 4x + 3$$

$$0 = (x - 3)(x - 1)$$

$$x = \textcircled{3} \textcircled{1}$$

$$\sqrt{8x+1} = x+2$$

$$\sqrt{25} = 5$$
$$5 \nmid 5$$

$$\sqrt{9} = 3$$
$$3 \nmid 3$$

$$\textcircled{1} (\sqrt{x-3})^2 = (\sqrt{2x+5})^2$$

$$x-3 = 2x+5$$

$$-8 = x$$

$$\textcircled{2} (\sqrt[3]{20-6x})^3 = (\sqrt[3]{4-2x})^3$$

$$20-6x = 4-2x$$

$$16 = 4x$$

$$4 = x$$

$$\sqrt{-11} \neq \sqrt{-11}$$

$$\textcircled{3} \quad \begin{array}{c} \sqrt{3x+2} - 2\sqrt{x} = 0 \\ + 2\sqrt{x} \quad + 2\sqrt{x} \end{array}$$

$$(\sqrt{3x+2})^2 = (2\sqrt{x})^2$$

$$3x+2=4x$$

$$2=x$$

$$\textcircled{4} \left(\sqrt[3]{x+4} \right)^3 = \left(\sqrt[3]{2x-5} \right)^3$$

$$x+4=2x-5$$

$$\textcircled{9=x}$$

$$\sqrt[3]{13} \neq \sqrt[3]{13}$$

$$\textcircled{7} \quad \sqrt[4]{2x} + \sqrt[4]{x+3} = 0$$

$$\left(\sqrt[4]{2x}\right)^4 = \left(-\sqrt[4]{x+3}\right)^4$$

$$2x = -(x+3)$$

$$\boxed{x = -3}$$

$$\left(2\sqrt{x}\right)^2$$

$$(-1)^4$$

$$\textcircled{8} \sqrt{2x+10} - 2\sqrt{x} = 0$$

$$(\sqrt{2x+10})^2 = (2\sqrt{x})^2$$

$$2x+10 = 4x$$

$$10 = 2x$$

$$\boxed{5 = x}$$

p. 441 # 24-46 ^{every other} evens

24, 28, 32, 36, 40, 44

p. 442 # 48-54 even